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NUS CORPORATION

Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

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September 10, 1985

NUS Project No. S761.05

Mr. Roy Schrock
U. S. Environmental Protection Agency
841 Chestnut Street
Philadelphia, Pennsylvania 19107

Subject: Transmittal of AEPCO's Response
to Technical Review Comments
on the Sand, Gravel and Stone
Remedial Investigation/Feasibility Study Report

Dear Mr. Schrock:

Enclosed please find one (1) copy of AEPCO's response to the technical review comments submitted, regarding the (draft) Remedial Investigation/ Feasibility Study (RI/FS) Report. This attachment summarizes NUS, EPA Region III, Maryland Department of Health and Mental Hygiene, U. S. Army Corp of Engineers', meeting of May 8, 1985, and meeting of May 10, 1985 comments.

Thank you for your quick response and cooperation during the preparation of the RI/FS report. Both AEPCO and I look forward to working with you during the Phase II RI/FS and if you have any questions or comments regarding this information, please feel free to contact me.

Very truly yours,

Robert E. Stecik, Jr.
Project Manager

Approved:

David E. MacIntyre
Region III
Manager of Projects

RES/pal

Enclosure

cc: Abe Ferdas, EPA - Region III
Lisa Woodson, EPA - Headquarters
William Kaschak, EPA - Headquarters
John Renehan, NUS
Paul Goldstein, NUS

bcc: D. R. Brenneman
D. Senovich 0813

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RESPONSE TO NUS'S COMMENTS ON RI/FS REPORT(S)

RI/FS FOR THE SAND, GRAVEL, AND STONE SITE
ELKTON, CECIL COUNTY, MARYLAND

COMMENT	RESPONSE
RAMESH SHAH'S COMMENTS ON DRAFT RI/FS REPORT	
1. Section 4.1.2: Details about geologic drilling are not related to the surface soil....	See new Section 4.1.2.
2. p. 4-34 through 4-36: All three cross-sections need to be redrawn.	See new Figures 4-2-9 to 4-2-11 on pages 4-36 through 4-38.
3. Water balance?	See Table 4-4-9 on p. 4-77.
4. Other comments in the text.	Corrected where necessary.
DEAN NEPTUNE'S COMMENTS ON DRAFT RI/FS REPORT	
1. Better than most subcontract efforts but still needs attention in a number of areas. Comments in the text.	Noted and corrected where appropriate.
DON R. BRENNEMAN'S COMMENTS ON RI/FS REPORT	
1. Discussion following remedial alternative categorization will have to be revised.	See p. 9-2 and 9-3; and p. 10-1 through 10-4.
2. Also, for alternatives where excavation is discussed, the typical problem appears: how do we know really how much material to remove and what is our rationale. This could be viewed by EPA as a major weakness.	See p. 10-37 through 10-44; and Figure 8-1-1 on p. 8-20. Appropriate ranges of excavation costs have been incorporated into the cost estimates to cover the uncertainties regarding quantities of drums, wastes, and contaminated soils to be excavated and disposed.
3. Also, if applicable, discharge of contaminated waters to a POTW must be evaluated.	See Section 9.1.10 on p. 9-31 through 9-34.
4. Other comments in the text.	Addressed where necessary.

RESPONSE TO COMMENTS ON RI/FS REPORT(S) RECEIVED IN PROJECT MEETINGS

RI/FS FOR THE SAND, GRAVEL, AND STONE SITE
ELKTON, CECIL COUNTY, MARYLAND

COMMENT	RESPONSE
MAY 10, 1985 (Meeting among EPA, MD DHMH, NUS, and AEPCO)	
1. A map showing contaminated areas, drums, etc.	See Figure 3-4-1 Location of Wastes and Figure 8-1-1 Contaminated Areas.
2. WS-06 in the western excavated area is not a background station.	Corrected. See Section 3.4, paragraph (3).
3. Label and shade Ponds PO1, PO2, and PO3 on Figures 4-3-2, 4-3-3, 4-3-4, and 4-3-5.	Corrected as requested.
4. Need conclusions and summary for each section.	Corrected as requested.
5. Justify Phase II RI/FS program.	See Section 3.4 paragraph (3); p. 4-78 "Interaction between Shallow, Deep, and Bedrock Aquifers"; Section 4.1.4 "Summary of Soil Contamination Problems"; and p. 4-94.
6. Verify contents of Table 4-4-1 Summary of Residential Wells: Springs should not have dimensions.	Verified and corrected as requested.
MAY 8, 1985 (Meeting between NUS and AEPCO)	
1. Include finding of existence of metallic objects southwest of Pond PO2.	See Section 3.4 Paragraph (4) on p. 3-13 and Figure 3-4-1 on p. 3-14.
2. Mention that the western excavated area is contaminated and requires investigation in Phase II RI/FS.	See Section 3.4 Paragraph (3) on p. 3-13 and Section 4.1.3 on p. 4-9.
3. Verify whether the wetlands on site are truly wetlands or man-made wetlands. If they are man-made wetlands, use appropriate name(s) instead of the word "wetland."	See Section 5.5.
4. Consider periodic system repairs required for each remedial alternative. For present worth analysis, assume that the periodic system repair cost will occur every 5 years at a rate of 5% of the associated capital cost.	See the cost tables throughout Section 10.

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RESPONSE TO EPA'S COMMENTS ON RI/FS REPORT(S)

RI/FS FOR THE SAND, GRAVEL, AND STONE SITE
ELKTON, CECIL COUNTY, MARYLAND

COMMENT	RESPONSE
EPA REGION III'S COMMENTS ON SECTION 8.0	
1. The use of EP Toxicity Procedure to "assist in the identification of positive readings" is questioned. This procedure was not designed or proposed to be used in any assessment of risk or hazard and has questionable validity in this regard.	True. But no response was made because of lack of better alternative procedures.
2. p. 8-5: Total extraction procedures would be more appropriate than the EP toxicity procedure for metal determinations in on-site waste samples.	Debatable. No response.
3. p. 8-5 (Second paragraph): Citing concentrations of metals that are significantly above normal, typical background levels would have been useful.	No response.
4. p. 8-5 (Last paragraph): Stated that cyanide levels were "considered to be low." Lower than what? (LD50, LDLo, TDLo, MCL, 1.0E-6 cancer risk?)	Cyanide was not often present nor widely distributed at the site. Therefor, it was not selected as a "contaminant of concern."
5. p. 8-11: Tentatively identified ABSN extractable compounds (TICs) should have been defined (why are these compounds placed in this category?)	The presence of TICs cannot be validated. No response.
6. p. 8-14: TIC compounds detected were excluded from the list of contaminants found. Several of these compounds are toxic and some are carcinogens.	(As above)
7. p. 8-15 (Second paragraph): Chemicals with low Kow values are considered to be relatively hydrophilic, not relatively hydrophobic.	Corrected.
8. p. 8-29: Separating health effects into chemical toxicity or biological effects has no scientific bais. ..... Carcinogenicity is a type of tumorigenicity and should be listed as such. The relevance of mutagenicity as a predictor of carcinogenicity should be presented. The various reproductive effects such as teratogenicity, ... should be listed.	Agreed. This was done for convenience only. Agreed. But no response, because mentioning these facts would not change the conclusions in this section.
9. p. 8-31: Carcinogenicity terms were not defined (animal definite, animal positive, etc.)	Yes, they have been defined in various tables in this section.
10. p. 8-33: RMCL and PPCL combined listing is confusing. The use of the term PPCL with a footnote explaining its overall meaning would have been sufficient.	These terms have been footnoted in the relevant tables.
11. p. 8-44 (Third paragraph): The statement "chloroform is a positive mutagen in humans, rats, hamsters, mammals, and bacteria via inhalation" has at least four obvious errors.	Corrected.
12. p. 8-50: The ADI for lead of 0.31 mg/kg would have been appropriate in this section.	Corrected.
13. p. 8-53, 8-54: Details of biota sampling were not presented and information provided was very sketchy.	No response, because of lack of chemical data on biota.

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RESPONSE TO MD DHMH'S COMMENTS ON RI/FS REPORT(S)

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RI/FS FOR THE SAND, GRAVEL, AND STONE SITE
ELKTON, CECIL COUNTY, MARYLAND

COMMENT	RESPONSE
MD DHMH'S COMMENTS ON RI REPORT(S)	
1. Site security and site closure costs have not been incorporated into any of the alternatives. Cost for disposal of the contaminated soil removed, when constructing the interceptor trenches has not been developed....	Corrected and reflected in all cost tables in Section 10.
2. On page 9-14 and other areas, it was stated that none of the residential wells have experienced any contamination, when in fact, one of the residential wells showed a trace level of one constituent at a level less than 10 ppb....	See revised discussions on page 9-14; and Tables 4-5-7 through 4-5-9 in Section 4.
3. If the Phase II study confirms initial information that the intermediate aquifer and bedrock under the site are contaminated, then remedial measures proposed to mitigate problems in the shallow aquifer in Phase I may not sufficiently address the problem.	Additional remedial measure(s) will be identified and assessed during Phase II, if deemed necessary.
4. The treatment alternative does not take into consideration hauling the wastewater off site for treatment to a TSD facility or upgrading a municipally owned wastewater treatment plant to handle this wastewater.	See Section 9.1.10 - Offsite Treatment
MD DHMH'S COMMENTS ON SECTION 8.0 OF RI REPORT(S)	
1. Table 8-2-1 (p. 8-28): 1,1,1-trichloroethene should read: 1,1,1-trichloroethane	Will be corrected in the final report.
2. Table 8-3-1A (p. 8-30): CAS # for 1,1,1-trichloroethane should read: 71-55-6	Will be corrected in the final report.
3. Table 8-3-2 (p. 8-33): Incorrect RMCL listed for chlorobenzene, should read: NR. Incorrect National Drinking Water Standards listed for 1,1,1-trichloroethene, should read: NR. Di-n-Butylphthalate, should read: NR.	Will verify and, if necessary, make corrections in the final report.
4. p. 8-36, 1st paragraph Line 7: "detected benzene....", should read "detected methyl chloroform...."	Will be corrected in the final report.

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RESPONSE TO ARMY CORPS OF ENGINEERS' COMMENTS ON RI/FS REPORT(S)

RI/FS FOR THE SAND, GRAVEL, AND STONE SITE
ELKTON, CECIL COUNTY, MARYLAND

COMMENT	RESPONSE
U.S. ARMY CORPS OF ENGINEERS' COMMENTS ON RI REPORT	
1. There are three names which seem to be used interchangeably - Maryland Sand and Gravelstone Co., Maryland Sand, Gravel, and Stone Co., and Sand, Gravel, and Stone Co.	No response
2. Most of the maps are quite blurry and hard to read.	Corrected
3. This RI report lists only data from this project. Data from earlier studies were not included as is often done in RI reports at other sites. Data from earlier studies would be helpful in analyzing the site.	Previous data are rather scattered; their sources are very difficult to track and cannot be effectively validated.
4. Ponds 01 and 02 and the waste close by appear to have the highest levels of organic contamination by far (samples WS-12, SED-21, and SED-04). The concentrations are very high, but the values cannot be used with much confidence when so much of the analysis data has been rejected.	No response
5. The waste samples were analyzed for the 8 RCRA metals by EP Toxicity Test. The other samples were analyzed for 10 of the priority pollutant metals. Probably should have analyzed for the 13 priority pollutant metals.	These metals were preselected during the RAMP. An attempt will be made to cover all important metals in the proposed Phase II RI/FS.
6. p. 4-41: First sentence mentions three bedrock boreholes. However, only one is mentioned anywhere else.	There was more than one bedrock borehole. However, only one was installed. It became a bedrock monitoring well.
7. p. 4-71: "None of these stations detected VOC species ...."	See Section 4.
8. p. 5-5, 5-7: The location of sample SW-30 is not marked on Figure 5-1-4. The location of SW-36 on Figure 5-1-4 is marked on the wrong side of Old Elk Neck Road.	Corrected
9. p. 5-8: (Next to last paragraph) Pond 03, not 01, was monitored by Stations SW-05, -06, and -07.	Corrected
10. p. 8-14, 8-15: Using TCLo, TD50, TDLo, etc. can be somewhat confusing. TDLo, LDLo, etc. values could be due to a lab animal that has a great deal of biological variability compared to the average, TD50, LD50, etc. values should be much more reproducible.	No response